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ABSTRACT

There is provided a honeycomb structure and a method for producing the honeycomb structure, capable of reducing
5 variance in pore diameter depending on part and capable of increasing the mean pore diameter as a whole. There is provided a method for producing a cordierite honeycomb structure 1 including the step of firing a honeycomb formed body. In the firing step, a temperature rise rate from
10 1200°C to 1250°C is controlled to 40°C/hr or more, a temperature rise rate from 1250°C to 1300°C is controlled to 2 to 40°C/hr, and a temperature rise rate from 1300°C to 1400°C is controlled to 40°C/hr or more. There is further provided a honeycomb structure having a porosity of 50 to
15 70%, a mean pore diameter of 15 to 30 μm , a difference in a mean pore diameter of 5 μm or less between in the central portion and in the outer peripheral portion, a thermal expansion coefficient of $1.0 \times 10^{-6}/^{\circ}\text{C}$ or less in each of the central portion and the outer peripheral portion, and an A-
20 axis compression strength of 1.5 MPa or more in each of the central portion and the outer peripheral portion.